IN THE CLAIMS:

Please amend claims 1, 19, 22, and 29 so that the claims read in accordance with the following listing of claims:

1. (Currently Amended) A method comprising:

determining a first timing of a signal burst received from a transmitting station at a receiving station, the first timing being associated with ~~the~~ a first component of the received signal burst that meets a predefined condition;

determining a second timing of the received signal burst, said second timing being for use in adjustment of internal timing of the receiving station for communicating further signal bursts with the transmitting station;

determining timing delay information for the communication between the transmitting and receiving stations; and

estimating a distance between the transmitting and receiving stations based on said timing delay information and information about the first timing of the received signal burst.

2. (Previously Presented) A method according to claim 1, comprising determining a difference between the first timing and the second timing, wherein the determined difference is used as a correction value in the estimation of the distance between the stations.

3. (Previously Presented) A method according to claim 1, wherein a timing advance value that is based on the timing delay information is used in said estimation of the distance, comprising:

determining a difference between the first timing and the second timing; and subtracting the difference between the first timing and the second timing from the timing advance value.

4. (Previously Presented) A method according to claim 1, wherein the respective timings are determined using an impulse response of the received signal burst.

5. (Previously Presented) A method according to claim 4, wherein the determination of the second timing is based on the mass center of the impulse response.

6. (Previously Presented) A method according to claim 2, wherein the receiving station determines the difference between the first timing and the second timing and the first and second timings are determined using an impulse response of the received signal burst.

7. (Previously Presented) A method according to claim 6, comprising transmitting the determined difference between the first timing and the second timing to the transmitting station for processing.

8. (Previously Presented) A method according to claim 1, comprising:

use of different reception and transmission timings at the receiving station, wherein the reception timing of the receiving station is adjusted in accordance with the determined second timing and the transmission timing for transmitting a response signal from the receiving station to the transmitting station is adjusted in accordance with the determined first timing;

receiving the response signal at the transmitting station;

determining at the transmitting station a timing of the received response signal such that the timing is based on a component of the received response signal corresponding said first component; and

determining a difference between the transmission timing and the timing of the received response signal.

9. (Previously Presented) A method according to claim 8, wherein the receiving station informs the communication system that it uses different reception and transmission timings.

10. (Previously Presented) A method according to claim 1, wherein the receiving station comprises a mobile station of a cellular communication system and the transmitting station comprises a base station of the cellular communication system.

11. (Previously Presented) A method according to claim 1, wherein the receiving station comprises a base station of a cellular communication system and the transmitting station comprises a mobile station of the cellular communication system.

12. (Previously Presented) A method according to claim 11, wherein the difference between the timings is subtracted from the timing advance by the base station.

13. (Previously Presented) A method according to claim 1, wherein the predefined condition is met by the signal component of the signal burst that arrives as a first detectable component of the transmission.

14. (Previously Presented) A method according to claim 1, wherein the predefined condition comprises a threshold value for the components.

15. (Previously Presented) A method according to claim 1, wherein one of the stations is a mobile station of a cellular communication system and at least one of the stations is a fixedly positioned base station, further comprising a step of determining the current geographical location of the mobile station by means of the distance between the mobile station and said at least one base station.

16. (Previously Presented) A method according to claim 15, further comprising step of:

determining at least-one further distance between the mobile station and at least one further base station; and

combining the results of the at least two determinations for estimating the current geographical location of the mobile station.

17. (Previously Presented) A method according to claim 1, wherein one of the stations is a mobile station, comprising step of combining the result of the estimation of the

distance between the mobile station and another station with at least one further result obtained from another determination relating to the location of the mobile station.

18. (Previously Presented) A method according to claim 1, comprising communicating information of at least one of the accomplished determinations to a location service node of the communication system.

19. (Currently Amended) A communication system comprising:

a transmitting station arranged to transmit one or more signal bursts over time slots in accordance with a timing structure of the communication system;

a receiving station configured to:

receive the one or more signal bursts, determine first timing of a signal burst received at the receiving station, the first timing being associated with ~~the~~ a first component of the received signal that meets a predefined condition, determine a second timing of the received signal burst for use in adjustment of the receiving station for receiving and/or transmitting further signal bursts, determine timing delay information for communication between the stations, and estimate a distance between the transmitting and receiving stations based on the timing delay information and information about the first timing.

20. (Previously Presented) A communication system according to claim 19, wherein the receiving station is configured to determine a difference between the first timing and the second timing and to correct an initial estimate of the distance between the stations on the basis of the determined difference.

21. (Previously Presented) A communication system according to claim 19, wherein the receiving station is configured to base the distance estimation on a timing advance value derived from the timing delay information, to determine a difference between the first timing and the second timing, and to subtract the difference between the first timing and the second timing from the timing advance value.

22. (Currently Amended) A communication system according to claim 19, wherein the receiving ~~unit~~ station is configured to make use of an impulse response of the received signal burst.

23. (Previously Presented) A communication system according to claim 22, wherein the determination of the second timing is based on the mass center of the impulse response and the determination of the first timing is based on a first component of the signal to arrive.

24. (Previously Presented) A communication system according to claim 19, wherein the receiving station is configured to use different timings for reception and transmission.

25. (Previously Presented) A communication system according to claim 19, wherein the receiving station comprises a mobile station of a cellular communication system and the transmitting station comprises a base station of the cellular communication system.

26. (Previously Presented) A communication system according to claim 19, wherein the receiving station comprises a base station of a cellular communication system and the transmitting station comprises a mobile station of the cellular communication system.

27. (Previously Presented) A communication system according to claim 19, wherein one of the stations is a mobile station of a cellular communication system and at least one other of the stations is a fixedly positioned base station, the system configured to determine the current geographical location of the mobile station by means of the distance between the mobile station and said at least one base station,

28. (Previously Presented) A communication system according to claim 19, comprising further a location service node for providing geographical location information.

29. (Currently Amended) A communication system comprising:

a transmitting station comprising means for transmitting one or more signal bursts over time slots in accordance with a timing structure of the communication system;

a receiving station comprising:

means for receiving the one or more signal bursts;

control means for determining a first timing of a signal burst received at the receiving station, the first timing being associated with ~~the~~ a first component of the received signal that meets a predefined condition;

control means for determining a second timing of the received signal burst for use in adjustment of the receiving station for receiving and/or transmitting further signal bursts;

control means for determining timing delay information for communication between the stations; and

control means for estimating a distance between the transmitting and receiving stations based on the timing delay information and information about the first timing.

30. (Previously Presented) A station in a communications system comprising a processing unit configured to:

determine a first timing of a received signal burst received from a transmitting station at the station, the first timing being associated with a first component of the received signal burst that meets a predefined condition, determine a second timing of the received signal burst, said second timing being for use in adjustment of internal timing of the station for communicating further signal bursts with the transmitting station, determine timing delay information for the communication between the transmitting station and the station, and estimate a distance between the transmitting station and the station based on said timing delay information and information about the first timing of the received signal burst.

31. (Previously Presented) A station in a communications system comprising

means for determining a first timing of a received signal burst received from a transmitting station at the station, the first timing being associated with a first component of the received signal burst that meets a predefined condition;

means for determining a second timing of the received signal burst, said second timing being for use in adjustment of internal timing of the station for communicating further signal bursts with the transmitting station;

means for determining timing delay information for the communication between the transmitting station and the station; and

means for estimating a distance between the transmitting station and the station based on said timing delay information and information about the first timing of the received signal burst.

32. (Previously Presented) A method comprising:

receiving at a first station a signal burst transmitted from a second station;

determining first timing information associated with the signal burst;

determining second timing information associated with the signal burst;

determining timing delay information associated said second timing of the signal burst; and

estimating a distance between the first and second stations based on said timing delay information and said first and second timing information.

33. (Previously Presented) The method if claim 32 comprising calculating a difference between said first and second timing information, wherein said estimating uses said difference.

34. (Previously Presented) A computer-readable medium having computer-executable components for:

determining a first timing of a received signal burst received from a transmitting station at a receiving station, the first timing being associated with a first component of the received signal burst that meets a predefined condition;

determining a second timing of the received signal burst, said second timing being for use in adjustment of internal timing of the receiving station for communicating further signal bursts with the transmitting station;

determining timing delay information for the communication between the transmitting and receiving stations; and

estimating a distance between the transmitting and receiving stations based on said timing delay information and information about the first timing of the received signal burst.

35. (Previously Presented) A computer-readable medium having computer-executable components for:

receiving at a first station a signal burst transmitted from a second station;

determining first timing information associated with the signal burst;

determining second timing information associated with the signal burst;

determining timing delay information associated said second timing of the signal burst; and

estimating a distance between the first and second stations based on said timing delay information and said first and second timing information.